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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/974,046	10/11/2001	Satoshi Shinada	Q66672	7606

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EXAMINER

NGHIEM, MICHAEL P

ART UNIT

PAPER NUMBER

2863

DATE MAILED: 09/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/974,046

Applicant(s)

SHINADA, SATOSHI

Examiner

Michael P Nghiem

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 August 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 25-36 is/are allowed.
- 6) ☒ Claim(s) 17,20,37,38 and 41-46 is/are rejected.
- 7) ☒ Claim(s) 1-16,18,19,21-24,39 and 40 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 17.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

The Amendment filed on August 19, 2003 has been acknowledged.

Request for Continued Examination

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 19, 2003 has been entered.

Claim Objections

2. Claims 1, 3, 6, 10, 17, 19, 37, 39, 43, and 45 are objected to because of the following informalities:

- claims 1, 3, 6, 10, 19, "each cartridge having" (e.g. claim 1, line 4) should be -- said cartridge comprising --.
- claims 17, 37, 39, 43, 45, "each cartridge includes" (e.g. claim 17, line 3) should be -- said cartridge comprising --.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 17, 20, 37, 38, 41, and 42 are rejected under 35 U.S.C. 102(b) as being anticipated by Childers et al. (EP 878 307).

Childers et al. discloses all the claimed features of the invention including:

- an inkjet printer (10, Fig. 2) comprising:

- an ink cartridge (12), wherein the ink cartridge is one of ink cartridges that are detachably attached to a cartridge accommodating portion (14) of the inkjet printer as aligned in parallel, wherein each ink cartridge includes a contact (24) that contacts one of connecting members (30) formed in the cartridge accommodating portion when the ink cartridge is attached to the cartridge accommodating portion (Fig. 3), and wherein each contact is located offset from the middle of the associated ink cartridge in an aligning direction of the ink cartridges (Fig. 3);

- wherein said contact of each ink cartridge is contained on a outside surface of the ink cartridge (contact 24 is contained on surface of a recess, Fig. 3), and

- wherein the outside surface of the ink cartridge is substantially parallel to an insertion direction in which said ink cartridge is inserted into said cartridge accommodating portion (the surface of the recess containing 24 is parallel to an insertion direction, Figs. 1, 3);

- wherein said one of said connecting members is contained on a outside surface of the cartridge accommodating portion (30 is contained on surface of a protrusion, Fig. 1);

- wherein the outside surface of the cartridge accommodating portion is substantially parallel to an insertion direction in which said ink cartridge is inserted into said cartridge accommodating portion (the surface of the protrusion containing 30 is parallel to an insertion direction, Figs. 1, 3);

- wherein the side surface of the ink cartridge is substantially parallel to the aligning direction (same as insertion direction) of the ink cartridges (Figs. 1, 3).

Claims 17, 20, 37, 38, and 41-46 are rejected under 35 U.S.C. 102(b) as being anticipated by Shinada et al. (EP 997 297).

Shinada et al. discloses all the claimed features of the invention including:

- an inkjet printer (Fig. 1) comprising:

- an ink cartridge (40, 50) wherein the ink cartridge is one of ink cartridges (Fig. 6) that are detachably attached to a cartridge accommodating portion (4) of the inkjet printer as aligned in parallel (Fig. 1),

- each ink cartridge includes a contact (contact of 31) that contacts one of connecting members (24, 25) formed in the cartridge accommodating portion when the ink cartridge is attached to the cartridge accommodating portion (Fig. 3),

- each contact is located offset from the middle of the associated ink cartridge in an aligning direction of the ink cartridges (contact of 31 is offset towards the bottom in a vertical direction, Fig. 3), wherein said contact of each ink cartridge is contained on an outside surface of the ink cartridge (Fig. 3), and wherein the outside surface of the ink cartridge is substantially parallel to an insertion direction in which said ink cartridge is inserted into said cartridge accommodating portion (Fig. 3);

- the side surface of the ink cartridge is substantially parallel to the aligning direction of the ink cartridges (Fig. 4);

- said contact of each ink cartridge is contained on a side surface of the ink cartridge such that both of the contacts of a pair of adjacent ink cartridges are located in a single plane when the ink cartridges are attached to the cartridge accommodating portion (Figs. 1, 2, 4).

Allowable Subject Matter

4. Claims 18 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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5. Claims 1-16, 19, 21-23, 39, and 40 would be allowable if rewritten or amended to overcome the objection(s) set forth in this Office action.

6. Claims 25-36 are allowed.

Reasons For Allowance

7. The combination as claimed wherein an ink cartridge including matching sets shaped and located such that a fitting structure between one pair of adjacent ink cartridges and a fitting structure between another pair of adjacent ink cartridges are different in form (claims 1, 3, 6, 19) or each matching set is formed only between predetermined two adjacent ink cartridges such that the ink cartridges are connected together as aligned in a predetermined order and the ink cartridges respectively comprise ink supply ports, wherein the cartridge accommodating portion comprises ink supply needles (claim 10) or both of the contacts of a first pair of adjacent ink cartridges contact a first one of the connecting members (claims 18, 39) or the size of the second engaging portion is substantially different than the size of the third engaging portion (claims 25, 28) is not disclosed, suggested, or made obvious by the prior art of record.

Response to Arguments

8. Applicant's arguments filed on February 21, 2003 have been considered but are not persuasive.

With respect to the 35 USC 102 rejections, Applicants argue that Childers fails to disclose that the contact of the ink cartridge is contained on an outside surface of the ink cartridge.

Examiner's position is that even though the contact (24) is contained in a recess of an ink cartridge, the recess is exposed to the outside to allow the contact (24) to make connection with the electrical connector (30) of the printer (Fig. 3). Thus, the surface of the recess may be considered to be an "outside surface" as opposed to an inner surface of the ink cartridge (inner surface of reservoir 22 for holding ink, Fig. 1), which is not exposed to the outside.

Applicants further argue that Childers does not disclose that the side surface of the ink cartridge is substantially parallel to the aligning direction of the ink cartridges and that the side surface of the cartridge accommodating portion is substantially parallel to the aligning direction of the ink cartridges.

Examiner's position is that Childers discloses that the side surface of the ink cartridge (side surface of recess, Fig. 3) is substantially parallel to the aligning direction of the ink cartridges (insertion direction of ink cartridges into 14, Fig. 3) and that the side surface

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of the cartridge accommodating portion (side surface of 30) is substantially parallel to the aligning direction of the ink cartridges (Fig. 3).

Contact Information

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Nghiem whose telephone number is (703) 306-3445. The examiner can normally be reached on M-H from 6:30AM – 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached at (703) 308-3126. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7724 for regular communications and (703) 308-5841 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



MICHAEL NGHIEM
PRIMARY EXAMINER

Michael Nghiem

September 13, 2003